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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,398	09/30/2003	Si-Hyun Song	8734.239.00 US	3749

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WASHINGTON, DC 20006

EXAMINER

ADAMS, GREGORY W

ART UNIT	PAPER NUMBER
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3652

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.		Applicant(s)	
	10/673,398		SONG, SI-HYUN	
	Examiner		Art Unit	
	Gregory W. Adams		3652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 2002-0061912.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1, 3-19, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Babbs (US 5,823,361) in view of Betsuyaku (US 6,006,919).

With respect to claims 1, 3, 7-13, 14-19, 21-25 Babbs discloses a frame, support members 126 protruding from opposing sides, and two support bars 125 connecting two support members 126 configured to distributed a load across a substrate. Babbs does not disclose rectangular supporting bars connecting two support members. Betsuyaku discloses a liquid crystal display panel cassette including rectangular supporting bars (FIG. 4: 3) that per international agreement improves "durability, sealing performance, good anti-staining performance, unmanned use, automation, ease of cleaning, etc." C1/L28. Therefore, it would have been obvious to one having ordinary skill in the art at

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the time the invention was made to modify the apparatus of Babbs to include rectangular supporting bars as per the teachings of Betsuyaku, to improve LCD cassette performance.

With respect to claims 4-6, 20, Babbs discloses a frame, support members 126 protruding from opposing sides, and two support bars 125 connecting two support members 126 configured to distributed a load across a substrate, and does not explicitly disclose supporting liquid crystal display panels including thin film arrays and color filters but Babbs discloses supporting large glass substrates by using support members connected by support bars to minimize sag. C1. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use Babbs' cassette to store liquid crystal display panels comprising thin transistor arrays and color filters as Babbs discloses the apparatus which could function to support large objects. Babbs does not disclose rectangular supporting bars connecting two support members. Betsuyaku discloses a liquid crystal display panel cassette including rectangular supporting bars (FIG. 4: 3) that per international agreement improves "durability, sealing performance, good anti-staining performance, unmanned use, automation, ease of cleaning, etc." C1/L28. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Babbs to include rectangular supporting bars as per the teachings of Betsuyaku, to improve LCD cassette performance.

Claim 2 rejected under 35 U.S.C. 103(a) as being unpatentable over Babbs (Us 5,823,361) in view Stadler et al. (US 5,236,548) (previously cited). Babbs discloses a

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frame, support members 126 protruding from opposing sides, and two support bars 125 connecting two support members 126. Babbs does not disclose acetal resin. Referring to FIGS. 1-2 Stadler et al. disclose support bars 8 of acetal resin which is resistant to cleaning agents and etchants and that do not contaminate substrate. Col. 5, lns. 39-46. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Babbs' supports to include acetal resin, as per the teachings of Stadler et al., such that supports resist cleaning agents and etchants and will not contaminate substrates.

Response to Arguments

Applicant's arguments filed Feb. 22, 2007 have been fully considered but they are not persuasive.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the combination is proper for at least the reasons that the cited prior art are analogous and that the modifying reference solves problems not previously considered in the primary reference. Babbs and Betsuyaku accommodate wafers in a portable container and thus are analogous. Betsuyaku teaches a flat surface for the purpose of modifying rounded

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surfaces as those disclosed in Babbs which in the process of “accommodating, storing, preserving, conveying and shipping precision substrates such as semiconductor wafers, lead frames, mask glass substrates, etc.” which serves the “development of semiconductor chips into large-sized configurations and increase in productivity therefore”. C1/L9-34. Large sized substrates are due to a recent international agreement. Thus, Betsuyaku responds to the trend to larger substrates not previously considered in Babbs’ by adding flat surfaces.

With respect to claim 2, Applicants arguments directed to Stadler are irrelevant because Babbs discloses rectangular support bars when viewed from top down.

With respect to claims 4-6 & 20, Applicant is respectfully reminded that the material or article worked upon by the apparatus does not limit apparatus claims. See MPEP 2115. Moreover, while not explicitly disclosing color filters, Babb’s discloses containers for flat panel displays, e.g. LCDs, which inherently are fragile in nature. Given the delicate nature of LCD displays the functional difference between handling one type of LCD over another, e.g. transistor arrays bonded to color filters, is marginal. And, for handling LCDs having transistor arrays bonded to color filters all that is required is support members and supporting bars which the cited prior art clearly discloses. Thus, the cited prior could certainly handle any LCD panel much less transistor arrays bonded to color filters.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

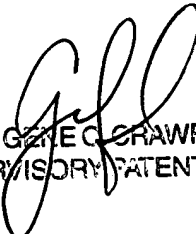
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory W. Adams whose telephone number is (571) 272-8101. The examiner can normally be reached on M-Th., 8:00-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on (571) 272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GWA


GENE C. CRAWFORD
SUPERVISORY PATENT EXAMINER